

PATENT APPLICATION
042390.P3275R

REMARKS

Claims 1-13 are listed, with claims 1-6 being the claims listed in U.S. patent 5,812,860 and claims 7-13 having been added in the preliminary amendment filed with reissue application. Claims 38-61 have been canceled without prejudice. No new claims were added by this response. Claims 1-13 are pending in this reissue application.

Response to the 35 U.S.C. §112 Rejection

The Office Action rejected claims 39, 40 and 43 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have canceled claims 38-61 without prejudice, and accordingly, the rejection under 35 U.S.C. §112, second paragraph, should now be removed.

Response to the defective reissue oath/declaration

The Office Action states that the reissue oath/declaration filed with this application is defective in that it failed to refer to all of the amendments made in the application since it was filed. By canceling all claims added by amendment after the reissue oath/declaration was filed, and only prosecuting the claims 7-13 added in the preliminary amendment submitted with the reissue oath/declaration and signed by the three co-inventors, it is believed that the reissue oath/declaration filed September 22, 2000 is proper. That reissue oath/declaration declares on page 3 that the original patent was wholly or partially inoperative and the reasons were cited.

Response to the claim objection

The Office Action states that claims 7-13 and 38-61 are not in the proper format for a reissue. Applicant, in accordance with 37CFR §1.173 (b)-(d) and (g), have indicated the matter to be omitted by reissue by enclosing that matter in brackets, and further, indicated the matter added by reissue by an underlined of that matter. Per §1.173, the entire text of each claim being changed is included with a parenthetical

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expression stating the claim to be "new". Again, claims 38-61 have been canceled by this response.

Response to the claim rejection

The Office Action states that claims 7-13 and 38-61 are rejected under 35 U.S.C. §251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based.

It is Applicants' belief that the broadening aspect of the claim language in the base claims 7 and 12 relates to subject matter that has not been surrendered during the prosecution of the application. It is believed that the base claims include the limitations relied upon to overcome the prior art rejection in the patent.

Claim rejections – 35 USC §102(b)

The Office Action states that claims 12, 13, 38-43, 56 and 57 are rejected under 35 U.S.C. §102(b) as being anticipated by Beard (5,627,412). Applicants' claims 38-43, 56 and 57 have been canceled without prejudice in this response and the rejection of these claims is now moot.

Applicants' independent claim 12 as amended recites determining an application mix being executed within a processor as monitored by an operating system; determining a frequency at which the processor may operate given the application mix; selecting a minimum voltage potential that corresponds to the frequency; and directing a state machine to enter a state in which the frequency and the minimum voltage potential are set to at least a portion of the processor in accordance with the application mix.

Beard teaches in column 4, lines 12-15, that the power level specified as 2.7volts, 3.3 volts or 5.0 volts operation may be selected by the user, or alternatively, monitored by a "fuzzy logic routine" to manage the power supply system. Fuzzy logic is defined in industry as a type of logic that recognizes more than simple true and false values. With fuzzy logic, propositions can be represented with degrees of truthfulness and falsehood. Instead of fuzzy logic, Applicants' claim that an operating system monitors an application mix being executed within the processor and that a state

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machine directs a state in which the frequency and the minimum voltage potential are set. This portion of Applicants' claim 12 that utilizes the operating system to monitor an application mix and a state machine to direct a state to set a processor voltage is not anticipated by Beard, and therefore, these features of Applicants' claim are believed allowable over the prior art reference of record.

Applicants' claim 13 depends from base claim 12 and is believed allowable over the art of record for at least the same reasons as base claim 12.

Claim rejections – 35 USC §103(a)

The Office Action states that claims 7-11, 44, 45, 49-52 and 59-61 are rejected under 35 U.S.C. §103(a) as being unpatentable over Beard (5,627,412). Applicants' claims 44, 45, 49-52 and 59-61 have been canceled without prejudice in this response and the rejection of these claims is now moot.

Applicants' independent claim 7 as amended recites, among other things, a processor having a processor core coupled through a pad ring to the static random access memory. Claim 7 further recites an operating system to monitor an application mix to determine a frequency and a voltage at which the core of the processor can operate ... while the pad ring operates at a constant voltage.

Beard teaches in column 4, lines 1-14, that a CPU 18 may execute in a low power mode with the processor operating at 2.7 volts, a higher speed mode with the processor operating at 3.3 volts, or yet a higher speed mode with the processor operating at 5.0 volts. Beard states that the power levels may be user selectable or may be monitored and controlled by a fuzzy logic routine which manages the power supply system in the background of operations of the processor.

Whereas Applicants claim a processor core operating at a voltage set by an application mix and a pad ring that operates at a constant voltage, Beard does not separate the processor core voltage domain from the pad ring voltage domain. Accordingly, Beard cannot teach Applicants' claimed feature of operating the pad ring at a constant voltage that is independent of the voltage of the processor core.

Further, Applicants claim recites that the operating system monitors an application mix to determine a frequency and a voltage at which the core of the

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processor can operate, whereas Beard delegates setting the CPU voltage as a task for the user or as a task for "fuzzy logic" operating in the background of operations of the processor. Again, Beard does not teach or suggest Applicants' claimed feature of using the processor operating system to determine an application mix that determines a frequency and a voltage at which the core of the processor can operate.

Accordingly, the prior art reference of Beard is deficient in teaching or suggesting the features of Applicants' claim 7 and the rejection based on that reference should be withdrawn. Applicants' claims 8-11 directly depend from base claim 7 and are believed allowable over the art of record for at least the same reasons as base claim 7.

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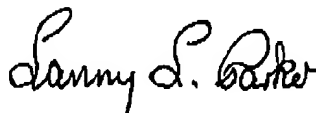
Conclusion

The foregoing is submitted as a full and complete response to the Office Action mailed February 2, 2005, and reconsideration of the rejections is requested. It is submitted that claims 1-13 are now in condition for allowance and allowance of these claims in this reissue application is earnestly solicited.

Applicants herewith petition the Director of the United States Patent and Trademark Office to extend the time for response to the Office Action dated August 15, 2005, for 3 months. Please charge Deposit Account #50-0221 in the amount of \$1020.00 for a three month extension. Should it be determined that an additional fee is due under 37 CFR §1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #50-0221.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,
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